

Serial No. 09/991,568

REMARKS

This amendment is responsive to the Official Action dated May 22, 2003.

Claims 1-29 were pending in the application.

Claims 16-29 were withdrawn from consideration as being drawn to a non-elected species.

By way of this amendment, the Applicant has canceled claims 1-29, and entered new claims 30- 34 which are similar in scope to claims 1-15.

RESTRICTION:

Applicant confirms the provisional election of claims 1-15, without traverse. Claims 16-29 have been canceled subject to the filing of a divisional application.

CLAIM REJECTIONS UNDER 35 USC§112:

Claims 2, 9, 12 and 14 were rejected under 35 USC §112 as being indefinite for insufficient antecedent basis.

Claims 1-15 have been canceled in favor of new claims 30-34 which are believed to better define the invention. The noted problems with claims 2, 9, 12, and 14 have been taken into account in the drafting of the new claims.

CLAIM REJECTIONS UNDER 35 USC§102:

Claims 1-4, 7, and 9-15 were rejected under 35 USC §102(b) as being anticipated by Leedy ('557).

Claims 1-15 have been canceled in favor of new claims 30-34 which are believed to better define the invention.

CLAIM REJECTIONS UNDER 35 USC§103:

Claims 5, 6 and 8 were rejected under 35 USC §103 as being obvious in view of Leedy ('557).

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Claims 1-15 have been canceled in favor of new claims 30-34 which are believed to better define the invention.

NEW CLAIMS:

The Applicant has entered new claims 30-34 which are believed to define patentable subject matter in view of Leedy '557.

Leedy has been cited as disclosing certain process steps in the fabrication of a semiconductor wafer, and in particular, in connection with the fabrication of integrated circuit logic units (ICLU's). The intention of the '557 patent is to provide a method of individually testing the ICLU's before they are integrated together on the wafer to form the die.

In this regard, Leedy discloses testing of the ICLU's on the wafer by individually contacting the ICLU's with the test device. It does not appear to the Applicant that Leedy deposits a temporary insulating layer over the contacts for the specific purpose of testing. Col. 3 lines 30-40 disclose the deposit of a polyimide layer to planarize the wafer. However, this layer does not appear to be removed later.

Once the defective ICLU's are identified, a CAD program develops a specific interconnect strategy to accomplish the desired logic functions. The wafer is then processed to deposit a layer of insulation, to form vias, to deposit metallic traces, and then repeated again. See Col. 6, lines 45-70.

In reference to claims 13 and 15, the Examiner stated that Leedy disclosed removing the insulator layers and the conductive interconnect layer at Col. 3, lines 15-20 and 30-40. Applicant can find no reference to complete removal of these temporary layers within the text cited by the Examiner. The text of the cited paragraphs is reproduced below for clarification.

"Then the metallization layers are deposited, and patterned in accordance with the modified interconnect scheme typically by E-beam (Electron-beam) lithography, instead of the masking process of the usual conventional technology. Thus each die has its own unique interconnect scheme, even though each die is to carry out the same function as the other die." Col. 3, lines 15-20.

"The surface of the wafer 1 is optionally planarized with a cured layer of polyimide 0.8 to 1.5 micron thick if the step heights between contact points are greater than 0.5 microns. (The

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contact points 2-1 to 2-32 are masked from the polyimide layer, to create a via over each contact point free of polyimide, and metal is deposited to fill the via.) The fabricated (but not metallized) wafer 1 is now ready for testing" Col. 3, lines 30-40.


In that Leedy lacks of disclosure of these steps, Leedy cannot render the claims as anticipated or obvious.

Accordingly, new claims 31-34 are now believed to be in condition for allowance and the application ready for issue.

Corresponding action is respectfully solicited.

PTO is authorized to charge any additional fees incurred as a result of the filing hereof or credit any overpayment to our account #02-0900.

Respectfully submitted,


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